Logistics—A Core DoD Competency?

Training, Reorganization, Representation Key to Future of DoD Logistics

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The Department of Defense (DoD) has been cutting logistics funding for years and is now seeking to privatize logistics operations to pay for recapitalization. As a result, the future of logistics as a core DoD competency could be on the line. To support the deployment and sustainment of an armed force, DoD needs certain skills, including those necessary to define outsourcing strategies and measure results. This article recommends, as a minimum, that DoD—

- expand the training of the logistics workforce, or alternatively redefine the composition and training requirements of the acquisition workforce;
- ensure that future logisticians have the skills needed to manage core logistics tasks in a changing environment;
- reorganize some logistics structures; and
- elevate logistics representation at the most senior Defense Department levels to a status commensurate with its cost and impact.

The Resource War

The DoD has sparred with itself for decades over how to spend its money. Should it acquire the new weapon systems its warriors want to build, or modernize the aging infrastructure that supports weapon systems but never goes to war at all. During peacetime, the resource planning, programming and budgeting cycle favors funding of weapon system acquisition to leverage new technology as a force multiplier. When the shooting starts, however, the priorities change from investment to support. Given the (thankful) infrequency of major conflicts, acquisition usually holds sway as the more significant economic engine. As a result, DoD has struggled to balance its resource allocations for the modernization of both the primary instruments of combat power and the infrastructure that supports the delivery of that combat power. Can this pattern continue indefinitely?

SOLDIERS OFF-LOAD LARGE FRONT-END LOADERS FROM A C-17 GLOBEMASTER III AIRLIFTER, TUZLA AIR BASE, BOSNIA.

U.S. Air Force photos

Unkept Promises

Logistics has been a "bill payer" for over 20 years. In recent years we have seen—

- projections of huge logistics productivity

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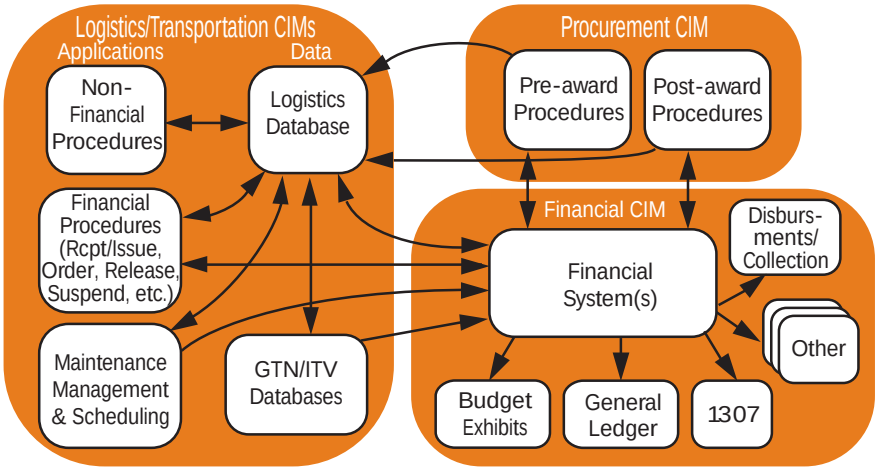
gains without new productivity tools or training;
- savings from base closures that, while critical, are still too few and take too long to complete; and
- costly information system projects that never quite work out.

Previous Secretaries of Defense have promised many real economies in logistics operations, but, after six years of continual infrastructure downsizing, it is not clear what economies DoD has actually achieved.[1] Improvements and innovations—some dramatic—have mushroomed throughout the logistics establishment, and overall head counts have dropped by 25 to 50 percent (about the same as force structure). Yet many of the basic processes remain about the same, and the level of process integration—one measure of progress—has hardly changed at all.

Media exposés about inventories out of control, astronomical parts prices, and inferior quality fed public perceptions of DoD inefficiency and waste in the late 1980s and early 1990s. While some data were selective, there was enough truth to create a resonance with the taxpayers. What the public was not able to reflect on was that DoD designed

IN FALLING SNOW, U.S. AIR FORCE PERSONNEL, USING A K-LOADER, OFF-LOAD CARGO THAT ARRIVED FROM RHEIN-MAIN AIR BASE, GERMANY, FROM A C-17 GLOBEMASTER III AT TUZLA AIR BASE, BOSNIA. C-17S FLEW MORE PASSENGERS AND CARGO INTO BOSNIA THAN ANY OTHER AIRLIFTER.

Figure 1. Relationships Between Major CIM Areas That Need or Remain to be Integrated



its logistics system to support a massive force with mass of its own. Each Service traditionally insists its congressional mandate to support and train its own forces, leads necessarily to independent and duplicative infrastructures. There was no reward—only risk—for giving up authority or resources in favor of system-wide benefits. Even the vendors had grown comfortable with a situation where DoD largely shielded them from the market forces that were shaping commercial companies in similar lines of industrial work.

The Bush Administration made a new commitment to cut excess in the support system. A series of Defense Management Review Decisions (DMRD) cut Service funding for supplies and services by more than $30 billion over five years, lowering the future years' baselines accordingly. Many of these reforms appeared justifiable using models vaguely based on private-sector business practices. Often, however, the reformed processes changed only superficially from the input-focused processes they supplanted. Reasons for the lack of real change include the following:

Defense cannot resize as readily as private sector organizations can in response to market changes.
The Department characterized much of the reformed infrastructure as a group of defense "businesses" that would be self-scaling because their budget authority would come from customer sales. As force structure reduced workload, logistics organizations would earn less budget authority and shrink. Unfortunately, the business paradigm did not fit where DoD (1) had not established cost baselines; (2) centrally controlled pricing one to two years' lead time away; (3) treated some businesses as monopolies, while expecting others to compete; and (4) gave no authority to reshape the workforce or to relocate to lower cost areas.

Much of the savings came from negative budget wedges, not business case analyses.
The DoD assumed productivity savings with only a veneer of rationale and seldom with any true plan for achieving them. Also, DoD seldom included reorganization costs in the cost and savings streams. Often the conversion to "business" operations cried out for cost management systems, yet to appear.

Centralization of the Department's information services functions combined with "Corporate Information Management" (CIM) cost the Department discretionary funds while producing little improvement.
Logistics information systems still employ fundamentally the same early-1980s technology level despite five years' effort and hundreds of millions of dollars in outlays.

The CIM program was one of the spectacular failures of the Defense Management Review process. The DoD fashioned CIM after Office of the Secretary of Defense (OSD) organizational stovepipes, including finance, medical, supply, maintenance, transportation, procurement, and environment. While industry had begun to successfully integrate these functions in the 1980s, the DoD continued to rely on batch transaction interfaces. CIM brought no new management commitment to break down the stovepipes, despite the fact that integration was key to productivity improvement. Figure 1 shows some of the relationships between major CIM areas that need to be (and mostly remain to be) integrated.

The business enterprise exists only as the sum of the production in each of the large and small blocks of this schematic. But at no time was there a serious attempt at "enterprise integration." In fact, true integration could not be successful, given the CIM program's focus on standardization of applications. Now with CIM having mostly unraveled, and a significant logistics opportunity having been squandered, what remains important is insistence on implementing a principle of information sharing throughout logistics. Integration of procedures follows later as the business needs dictate.

Now that the years of maximum promised DMRD logistics reform savings are upon us, DoD cannot pay the negative budget wedges of the past Administration without consequences. The Department has reduced inventory levels by billions of dollars. The Services are already reutilizing more "excess" property than in years past.

The Evolution of DoD and Private Sector

DoD led the nation from 1945 to 1970 in developing logistics capabilities. The huge size of the pre-1990s force structure and the breadth and depth of potential U.S. force commitments

demanded a logistics system with massive structure, redundancy, and inventory. The cost of such a system was large, but gave DoD the ability to respond rapidly to any challenge anywhere in the world.

U.S. industry adopted many DoD logistics systems methods during that same time period. After the mid-1970s, however, economic competition drove industry to look for improvements. By the early 1980s, large U.S. manufacturers had moved quickly to adopt just-in-time support methods for their production lines. Other companies—including many in the retail catalogue trade—began looking for ways to dump costly internal support organizations in favor of third-party logistics service companies.

Often new industry solutions to supply and distribution problems centered on tight integration of business processes and broader sharing of corporate information. Key elements of the new solutions included a focus on—

- customer support of large, market-dominating customers;
- just-in-time principles to maximize efficiency at every stage of each process; and
- results rather than process.

In peacetime, the DoD's primary business is acquisition followed by training, while in wartime the primary mission is combat and combat support. During the Cold War, when hostilities were perceived as near at hand, the DoD focused on its wartime support needs and built its system more nearly on "wartime" priorities. Although "mission" came first, the concepts of "customer" needs, choice, and market forces never influenced the design or execution of logistics processes—another reason that the DoD system compared poorly against emerging private-sector business. Unfortunately, the Department's leadership lacked the patience and insight to go after fundamental problems and see fixes to their conclusion.

DoD Logistics Organization and the Commission on Roles and Missions of the Armed Forces

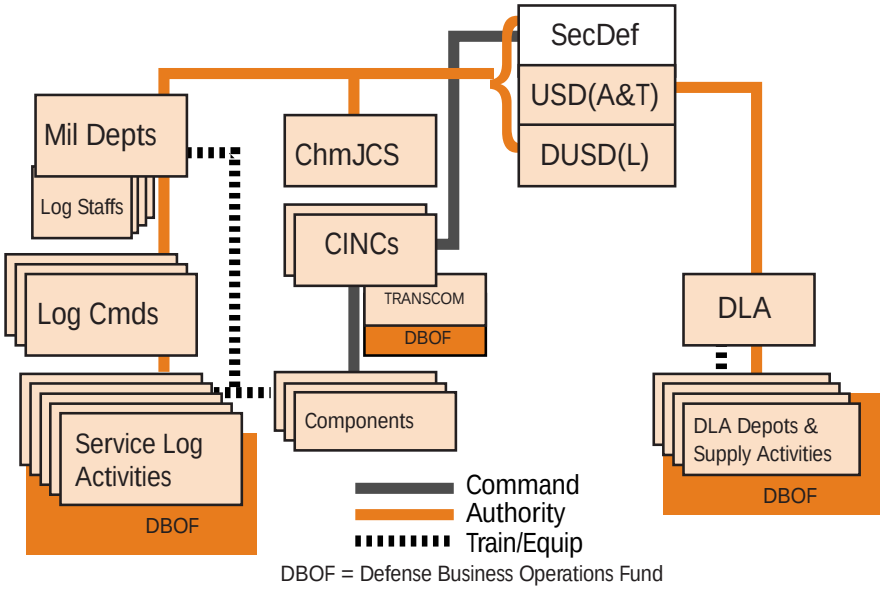
DoD's logistics system may be the most complex industrial enterprise on earth. The total annual DoD budget authority in support functions exceeds $100 billion; and about 800,000 people engage in support functions at one of the logistics system's many echelons. One might think that logistics would be high on the Department's organizational chart, with both senior civilian and military officials having direct responsibility for operations. This is, of course, not the case. Following the earlier discussion of Title X responsibilities, logistics "happens" within tens of organizations under many different commands. Figure 2 depicts this dispersion of authority. At the OSD level, the senior official has been, since the late 1980s, a political appointee (presently titled the Deputy Under Secretary of Defense for Logistics—DUSD[L]). Some appointees to the position have had logistics experience, but not all.

In addition, the senior DoD logistics official is subordinate to the acquisition organization within OSD. The DUSD(L) reports to the Under Secretary of Defense for Acquisition and Technology (USD[A&T]) along with 18 peers concerned primarily with acquisition and industrial-base issues. These other organizations dominate the business of the USD(A&T).

As a result of this fragmentation and subordination, the Comptroller actually sizes, manages, and directs much of the logistics system.

The Commission on Roles and Missions of the Armed Forces (CORM) tried to grapple with analytical approaches to modernizing and streamlining the complex DoD logistics infrastructure. In the end, however, the CORM found itself unable to unravel the conflicting viewpoints given by the numerous military logisticians who spoke to and before it. The CORM's final report devolved to an exhortation to outsource and privatize. The CORM based its recommendations on a small sample of companies who had shed their organic support structures for purchased services. From that it concluded that DoD could achieve at least 20-percent reductions in infrastructure costs by doing the same thing. A Defense Science Board (DSB) "Summer Study" confirmed this view, arguing (with little analysis) that between 20-40 percent of the cost of infrastructure could be taken to fund modernization. Subsequently, the Quadrennial Defense Review set targets for reductions of up

Figure 2. Logistics Dispersion of Authority



DBOF = Defense Business Operations Fund

to $30 billion per year across the accounts that could be identified as "infrastructure accounts."

As I wrote last year in the spring, 1995 edition of *Spectrum*, outsourcing has an almost irresistible appeal. DoD would appear to gain billions more in near-term savings. At the same time, some defense companies that are facing major revenue decreases in acquisition contracts see the opportunity to recoup some of that lost revenue by offering logistics services.

During the current Administration, therefore, the question has become less whether, than how to outsource the non-combat structure of the Department as much and as quickly as possible. But what does DoD actually need to do to make a successful and historic transition from building logistics systems to managing logistics providers?

What is the Department's Logistics Mission?

In recent years, the Department of Defense has found itself committed to missions in which either the primary action, or a very large component of the mission, was logistics. For example:

Rwanda

The U.S. humanitarian mission to Rwanda was manifest primarily in DoD's ability to mount an international effort to provide the civilian population with desperately needed food, shelter, medicine, and clean water. The mission involved organization and execution of a difficult transportation link bringing complex equipment and common supplies a long distance to an underdeveloped place. It also involved the expertise to organize the missions, control the delivery of services at the deployment end, and maintain security of the operation until its completion.

Somalia and Haiti

When the President called on the Department to undertake "police" actions in these countries, a great deal of stress fell on logistics. The DoD had to perform airlift, supply management, demilitarization, and other logistics functions in an environment with almost no usable infrastructure. These conditions were challenging, but well within the capabilities of Defense logisticians. Although the support structure worked, it worked with some of the same stress symptoms seen in prior conflicts: limited communications, limited availability of information technology, and lack of process integration. Particularly lacking was the flow of information across the supply and transportation processes, leading to mix-ups in the delivery and return of matériel, and excessive waste.

Operation Desert Storm

With Operation Desert Storm, DoD began to employ more private-sector support within the theater of operations. It was a change driven by necessity: the immediacy of support needs overwhelmed the organic logistics system's ability to deploy. Thankfully, Saudi Arabia could provide accessibility to outside commercial entities and had resources of its own. It was difficult to arrange all the necessary support, but it did become available.

Bosnia

In Bosnia, DoD found itself in close proximity to the fully modern European economy, yet far enough away to put significant demands on both military and commercial providers. Although the initial support planning involved large amounts of military direct support, DoD components quickly began to explore the potential of using commercial services. Ultimately these played a significant role, making clear that commercial *support of some types* (and I emphasize this point) is not limited to behind the lines.

A number of factors drove the shift to commercial support, including the inability of the organic logistics structure to deploy quickly and sufficiently to do the job.[2] Both the Defense Logistics Agency (DLA) and the Army quickly sought commercial sources of support. DLA looked to commercial distributors for food and fuel, and increased the use of commercial airlift to move matériel overseas. The Army contracted for much more comprehensive services, including contractor-provided support equipment and vehicles. Commercial companies may provide the largest percentage of logistics support in Bosnia of any military operation yet. Whether commercial support proves to be cost-effective is already being audited. If future use of commercial support continues on such a large scale, DoD will need to develop specialized capabilities to acquire it.

The Indisputable Need for Acquisition Excellence

The National Defense Authorization Act of 1987 created the post of Under Secretary of Defense for Acquisition. Subsequently, and after considerable internal discussion, the Under Secretary established the Defense Acquisition Workforce as a professional cadre of better-trained people able to match wits with industry across the negotiating table.

Much of the logistics support community accepted—in fact promoted—its exclusion from the cadre. The community did so for a number of reasons:

- There was, initially, no clear benefit from inclusion and potentially significant cost associated with inclusion.
- Some perceived that the Acquisition Workforce would prove to be either a passing fancy or, as is now proving true, a leverage point for reducing the size of the workforce.
- The full logistics spectrum was not well represented in discussions with the Under Secretaries for Acquisition as the matter evolved.

The Acquisition Workforce, while a step forward, did not become fully representative of the broad range of specialized functions that deliver logistics support. In addition, under the Defense Acquisition Workforce Improvement Act (DAWIA), it became a somewhat elite group, compared

with many of the other support disciplines. This DAWIA evolution, while largely positive, changed the resource balance available for development and maintenance of critical skills in other logistics specialties. In an unintended way, the advent of DAWIA reversed the traditional view of acquisition as an element of logistics.

No one questions the need for a professional acquisition workforce. But is it enough as we have defined it? For example, maintenance manpower costs alone account for over two-thirds of vehicle support costs. Designing supportability into a system costs more up front, but pays off in the long run. Yet, despite decades of acquisition reform efforts, little has changed to train non-logisticians on why and how to make life-cycle cost a more prominent concern in the program review process. The inference to be drawn is that, to be successful, acquisition must work as a life-cycle process, and its execution must include the breadth of skills that bear on improving life-cycle supportability.

What is the Future of DoD Logistics?

There is little doubt that the private sector offers enormous capacity to improve the delivery of logistics services to the Department, if DoD intelligently employs that capacity—for example, by using existing world-class capabilities, not spawning new Defense-unique/dependent firms. There are a number of points to consider in employing private-sector logistics services.

DoD will need to bring some elements of competition to the performance of those logistics functions it retains internally.
The lack of a competitive environment within the government contributes to its inefficiency. At the same time, regulatory relief is imperative to create a "level playing field" for government entities.

DoD faces a dilemma in selecting outsourcing partners.
Many of the companies dependent on DoD that have been pressing for privatization have been doing so as a way to keep cash flowing to support a defense weapons skill base. These are not necessarily the companies with world-class logistics skills.

Obtaining excellence in outsourced functions requires an expert understanding of the processes being performed.
Without this expertise, it is impossible to understand the qualitative differences in potential service providers.

There will always be jobs no one will want to do because they are not profitable or do not remain profitable.
Many tasks from engineering support to property reutilization involve processes that do not make money. Whoever remains to do these tasks must be part of the combined public-private system that delivers logistics support.

Any outsourcing of logistics must achieve substantial gains in process and information integration to be worth the trouble of implementation.
The primary inefficiencies in the existing system occur at the boundaries where processes do not properly integrate, and information does not flow freely.

There is a continuing need to invest in training and technology for the shrinking organic logistics infrastructure.
This residual infrastructure will play a key role in acquiring and effectively using commercial logistics services, and providing the balance of services that remain in house. Failure to make this investment will increase the risk of DoD mission failure.

What is Needed?

The DoD should define the Logistics workforce as a professional workforce to include all functions having skills that bear on the life-cycle support process. Along with more comprehensive (broader) basic training, refresher training and industry experience should be part of career development programs, starting at mid-level. An alternative is to redefine the Acquisition Workforce in a way that requires broad logistics training along with purely acquisition-oriented skills.

In addition to upgrading the workforce, there is a long-standing need for a streamlined organization to deliver logistics support in joint- and combined-force environments. If DoD does not find a way to streamline the logistics structure, then it cannot resolve integration problems, and internal competition for scarce resources will continue to undermine improvements.

Last, an official at the Under Secretary level needs to be in charge of the entire $100 billion DoD logistics operation, with direct line authority over the delivery system. This official should not have a primary concern for new technology and weapons system acquisition programs. It has long been the case that the combination of logistics and acquisition responsibilities—regardless of the intentions or talents of the official in charge—does not actually integrate the underlying processes.

These changes will not be easy, or DoD might have made them years ago. If DoD does not make them, however, unkept promises and notions that have little underpinning will continue to erode the support our forces deserve and need. Taxpayers would not tolerate such a casual approach to the acquisition of major weapon systems. They should not tolerate it any longer in the acquisition of life-sustaining support capabilities.

ENDNOTES

1. Defense Science Board Task Force Report on "FY 1994-99 Future Year Defense Plan," chaired by Philip Odeen, May 1993.

2. In part, the organic logistics structure was hampered by a relatively small callup of reserve forces, which comprise a large portion of Army's logistics capability.